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(54) **Measuring blood pressure**

(57) A method for measuring blood pressure of a subject is described herein. In an implementation, the method includes obtaining a plurality of photoplethysmogram (PPG) features associated with the subject. The method further includes ascertaining one or more latent parameters associated with the subject based on the plurality

of PPG features and a reference model, wherein the reference model indicates a correlation between the plurality of PPG features and the one or more latent parameters. Further, blood pressure of the subject is determined based on the one or more latent parameters and the plurality of PPG features.

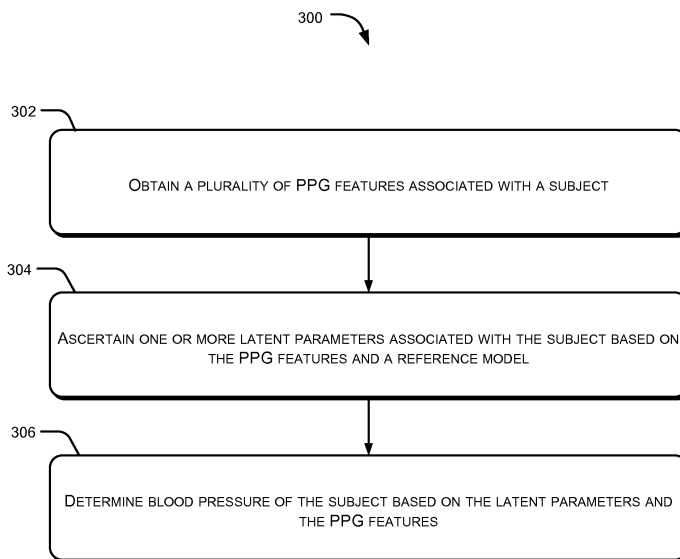


Figure 3

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EUROPEAN SEARCH REPORT

Application Number  
EP 15 15 5771

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2009/163821 A1 (SOLA I CAROS JOSEP [CH] ET AL) 25 June 2009 (2009-06-25) * paragraphs [0025] - [0030], [0049] - [0053], [0055] - [0058], [0076] - [0077] * * figures 1-2 *	1-7,14	INV. A61B5/024 A61B5/021 A61B5/00 A61B5/0205 G06F19/00 A61B5/022
A	US 2009/326395 A1 (WATSON JAMES [GB]) 31 December 2009 (2009-12-31) * paragraph [0002] * * paragraph [0027] * * paragraph [0035] * * paragraph [0032] *	1-7,14	
A	US 5 533 511 A (KASPARI WILLIAM J [US] ET AL) 9 July 1996 (1996-07-09) * the whole document *	1-7,14	
X	WO 2013/056319 A1 (UNIV SYDNEY TECH [AU]) 25 April 2013 (2013-04-25) * page 8, line 18 - page 9, line 18 * * page 11, line 25 - page 12, line 20 * * page 12, line 32 - page 13, line 24 * * page 17, lines 3-17 * * page 18, lines 8-24 * * figures 1-3 *	8-13	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			A61B G06F
Place of search		Date of completion of the search	Examiner
The Hague		25 April 2016	Faymann, Juan
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		& : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)



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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

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**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
EP 15 15 5771

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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1. claims: 1-7, 14

Device and method for measuring blood pressure based on latent parameters and a stored reference model.

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2. claims: 8-13

Modeling system and method for measuring blood pressure in one of many test subjects wherein a reference model is determined based on latent parameters and PPG features.

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-04-2016

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US 2009326395 A1	31-12-2009	US 2009326395 A1 US 2014058231 A1	31-12-2009 27-02-2014
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WO 2013056319 A1	25-04-2013	NONE	

专利名称(译)	测量血压		
公开(公告)号	<a href="#">EP2992820A3</a>	公开(公告)日	2016-06-01
申请号	EP2015155771	申请日	2015-02-19
申请(专利权)人(译)	塔塔咨询服务有限公司		
当前申请(专利权)人(译)	塔塔咨询服务有限公司		
[标]发明人	BANERJEE ROHAN DUTTA CHOUDHURY ANIRBAN SINHA ANIRUDDHA		
发明人	BANERJEE, ROHAN DUTTA CHOUDHURY, ANIRBAN SINHA, ANIRUDDHA		
IPC分类号	A61B5/024 A61B5/021 A61B5/00 A61B5/0205 G06F19/00 A61B5/022		
CPC分类号	A61B5/0205 A61B5/02116 A61B5/02241 A61B5/02416 A61B5/7246 A61B5/7264 A61B5/7278 G06F19/3418 G16H40/67 G16H50/20 G16H50/50 A61B5/02007 A61B5/02125		
优先权	2593MUM2014 2014-08-11 IN		
其他公开文献	EP2992820A2		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

本文描述了一种用于测量受试者的血压的方法。在一种实施方式中，该方法包括获得与受试者相关的多个光电容积描记图 ( PPG ) 特征。该方法还包括基于多个PPG特征和参考模型确定与对象相关联的一个或多个潜在参数，其中参考模型指示多个PPG特征与一个或多个潜在参数之间的相关性。此外，基于一个或多个潜在参数和多个PPG特征确定受试者的血压。

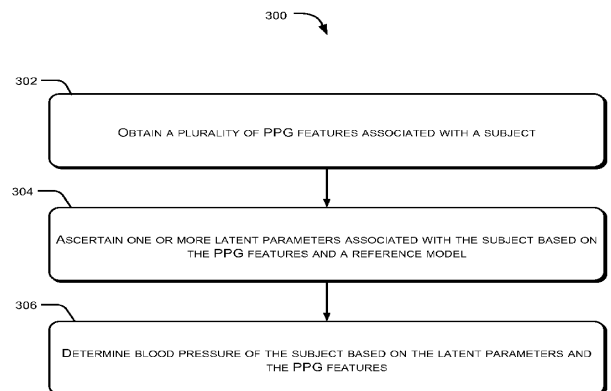


Figure 3